AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior listings and versions thereof.

1-10. (Cancelled)

11. (Currently amended) A method of screening a compound or its salt that changes the binding properties of a G protein-coupled receptor protein ~~containing the same or substantially the same amino acid sequence as~~ comprising the amino acid sequence represented by ~~SEQ ID NO: 2 or~~ SEQ ID NO: 4, or a salt thereof to β-alanine or L-carnosine, which comprises: ~~using (1) the receptor protein, its partial peptide, or a salt thereof and (2) β-alanine or L-carnosine~~

(a) (i) contacting the receptor protein or a salt thereof with β-alanine or L-carnosine, and (ii) contacting the receptor protein or a salt thereof with β-alanine or L-carnosine and a test compound;

(b) assaying the binding amount of β-alanine or L-carnosine to the receptor protein or a salt thereof in cases (i) and (ii); and

(c) comparing cases (i) and (ii).

12-17. (Cancelled)

18. (Currently amended) A method of screening a compound or its salt that changes the binding properties of a G protein-coupled receptor protein ~~containing the same or substantially the same amino acid sequence as~~ comprising the amino acid sequence represented by ~~SEQ ID NO: 2 or~~ SEQ ID NO: 4, or a salt thereof to β-alanine, which comprises: ~~using (1) the receptor protein, its partial peptide, or a salt thereof and (2) β-alanine~~

(a) (i) contacting the receptor protein or a salt thereof with β-alanine, and (ii) contacting the receptor protein or a salt thereof with β-alanine and a test compound;

(b) assaying the binding amount of β-alanine to the receptor protein or a salt thereof in cases (i) and (ii); and

(c) comparing cases (i) and (ii).

19-45. (Cancelled)

46. (New) A method of screening a compound or a salt thereof that changes the binding properties of β-alanine or L-carnosine to a G protein-coupled receptor protein comprising the amino acid sequence represented by SEQ ID NO: 4, or a salt thereof, which comprises:

(a) (i) contacting β-alanine or L-carnosine with a cell containing the receptor protein, and (ii) contacting β-alanine or L-carnosine and a test compound with a cell containing the receptor protein;

(b) assaying the cell stimulating activities mediated by the receptor protein; and

(c) comparing the cell stimulating activities between cases (i) and (ii).

47. (New) A method of screening a compound or a salt thereof that changes the binding properties of β-alanine to a G protein-coupled receptor protein comprising the amino acid sequence represented by SEQ ID NO: 4, or a salt thereof, which comprises:

(a) (i) contacting β-alanine with a cell containing the receptor protein, and (ii) contacting β-alanine and a test compound with a cell containing the receptor protein;

(b) assaying the cell stimulating activities mediated by the receptor protein; and

(c) comparing the cell stimulating activities between cases (i) and (ii).

48. (New) A method of screening a compound or a salt thereof that changes the binding properties of β-alanine or L-carnosine to a G protein-coupled receptor protein comprising the amino acid sequence represented by SEQ ID NO: 4, or a salt thereof, which comprises:

(a) (i) contacting β-alanine or L-carnosine with the receptor protein expressed on a cell membrane by culturing a transformant containing a DNA encoding the receptor protein, and (ii) contacting β-alanine or L-carnosine and a test compound with the receptor protein expressed on a cell membrane by culturing a transformant containing a DNA encoding the receptor protein;

(b) assaying the receptor protein-mediated cell stimulating activities in cases (i) and (ii); and

(c) comparing the cell stimulating activities between cases (i) and (ii).

49. (New) A method of screening a compound or a salt thereof that changes the binding properties of β-alanine to a G protein-coupled receptor protein comprising the amino acid sequence represented by SEQ ID NO: 4, or a salt thereof, which comprises:

(a) (i) contacting β-alanine with the receptor protein expressed on a cell membrane by culturing a transformant containing a DNA encoding the receptor protein, and (ii) contacting β-alanine and a test compound with the receptor protein expressed on a cell membrane by culturing a transformant containing a DNA encoding the receptor protein; and

(b) assaying the receptor protein-mediated cell stimulating activities in cases (i) and (ii); and

(c) comparing the cell stimulating activities between cases (i) and (ii).